Message

From: Trumble, Luke (EGLE) [TrumbleL@michigan.gov]

Sent: 4/29/2019 6:18:21 PM

To: Pelloso, Elizabeth [Pelloso.Elizabeth@epa.gov]

Subject: FW: Grand River Revitalization - Modeling Follow-up

Attachments: HEC-RAS modeling comments; RE: Grand River Revitalization - Hydraulic Modeling Meeting Follow-up; HND-CCW3-

EROMN Hydraulic Issues 10012018.pdf

FYI

Lucas A. Trumble, P.E.

Hydrologic Studies and Dam Safety Unit Water Resources Division, EGLE 517-420-8923 trumblel@michigan.gov

From: Trumble, Luke (DEQ)

Sent: Thursday, March 21, 2019 12:03 PM

To: 'Staal, Michael' <mstaal@grand-rapids.mi.us>; Occhipinti, Matthew (DEQ) <OCCHIPINTIM@michigan.gov> **Cc:** Saldivia, Luis (DEQ) <SALDIVIAL@michigan.gov>; Smalligan, James <jesmalligan@ftch.com>; McCaul, Jeff

<jmccaul@grand-rapids.mi.us>

Subject: RE: Grand River Revitalization - Modeling Follow-up

Good morning Mike,

Much of the feedback we have provided on hydraulic modeling has been over the course of several calls and meetings dating back to mid-2018. I have attached a few emails in which we expressed concerns with the draft models we were provided at the time. The expectation is that these issues would be addressed in future versions of the model. FYI, we have not seen an updated model in some time, so many of the comments we've provided since have been based on continued discussion and revised documents related to the modeling effort, but not actual model review.

Also, FYI, I've attached an October 10, 2018 letter we had sent with a correction request related to a proposed Flint River project RRO has been involved with. This project would utilize similar structures and similar modeling techniques. As you'll see in the letter, many of the concerns raised are identical to the concerns with the draft Grand River models, and we've tried to draw parallels where appropriate.

In general, the proposed conditions model must adequately characterize the fill with appropriate roughness coefficients and enough cross-sections to adequately capture the transitions and irregularities leading up to, through, between, and following all of the proposed fill and structures. Since these structures are complex and don't necessarily run perpendicular to the flow, a good rule of thumb would be the more cross-sections the better. Since cross-sections drawn perpendicular to the directions of the flow alone may not capture the crest of some the proposed structures, use of blocked obstructions or other methods to transpose the crest of the structures will likely be necessary.

You mentioned ineffective flow areas in your email below, I apologize as this may have been confusion on my part between the two projects. The Flint River letter expressly mentions IFAs, but looking back through past emails, I cannot find reference to IFAs related to the Grand River project.

One last point, our review and correspondence to date have been part of the ongoing pre-application consultation process for the project. We have not performed an in-depth review of the models or reviewed for compliance with state statute. Our review has been more of an effort to identify some of these upfront issues in order to receive a more complete model and aid the formal review process at the time that a permit application is submitted. I anticipate that

more conversations, and possibly modifications, would be necessary at the time of that in-depth review of the model, plans, and hydraulic report.

Please feel free to contact me with any questions or concerns.

Thanks, Luke

Lucas A. Trumble, P.E.

Hydrologic Studies and Dam Safety Unit Water Resources Division, MDEQ 517-420-8923 trumble@michigan.gov

From: Staal, Michael < mstaal@grand-rapids.mi.us>

Sent: Thursday, March 21, 2019 8:27 AM

To: Trumble, Luke (DEQ) <<u>TrumbleL@michigan.gov</u>>; Occhipinti, Matthew (DEQ) <<u>OCCHIPINTIM@michigan.gov</u>> Cc: Saldivia, Luis (DEQ) <<u>SALDIVIAL@michigan.gov</u>>; Smalligan, James <<u>jesmalligan@ftch.com</u>>; McCaul, Jeff <jmccaul@grand-rapids.mi.us>

Subject: Grand River Revitalization - Modeling Follow-up

Good morning Luke and Matt,

Thanks again for your time last week. It was greatly appreciated. I had two questions that I would like to follow-up from that meeting.

Luke, you had mentioned in the meeting that you had sent a guide or guidance to RRO pertaining to how to model a non-linear cross-sections possibly resulting in ineffective flow. You also mentioned that the guidance had not been followed. Would you be able to send this guidance to me? I would like to ensure that there is no misunderstanding of the details of this guidance and to ensure we follow it to the best of our ability.

To both Luke and Matt,

We are actively revising drawings, specifications, the model, and the hydraulic report to ensure we are clearly and accurately portraying the project. Jim and I would like to meet and show you the progress that has been made. Do you two have availability during the week of April 1? Since it is Spring Break week and usually a slow meeting week, Jim and I thought it may be a good week to meet if you were going to be around.

Thank you.

Best,

Mike

Michael Staal, P.E.

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